

What is claimed is:

1. An isolated C3 binding region from the *Staphylococcus aureus* Efb protein having the ability to inhibit complement activation.

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2. The C3 binding region of Claim 1 wherein the binding region is located at the C-terminal end of the Efb protein.

10 3. The C3 binding region of Claim 1 wherein the C3 binding region has an amino acid sequence of from amino acid 97 to 165 of the *S. aureus* Efb protein.

4. A pharmaceutical composition comprising the C3 binding region of Claim 1 and a pharmaceutically acceptable vehicle, carrier or excipient.

15 5. The pharmaceutical composition of Claim 4 wherein the C3 binding region is present in an amount effective to inhibit complement activation.

20 6. An isolated antibody that recognizes the C3 binding region according to Claim 1.

7. Isolated antisera containing the antibody according to Claim 6.

25 8. A diagnostic kit comprising an antibody according to Claim 6 and means for detecting binding by that antibody.

9. A diagnostic kit comprising the C3 binding region according to Claim 1 and means for detecting binding to said protein fragment.

10. A method of diagnosing an infection of *S. aureus* comprising adding an antibody according to Claim 6 to a sample suspected of being infected with *S. aureus*, and determining if antibodies have bound to the sample.

5 11. A pharmaceutical composition comprising the antibody of Claim 6 and a pharmaceutically acceptable vehicle, carrier or excipient.

12. A method of inducing an immunological response comprising administering to a human or animal an immunogenic amount of an isolated C3  
10 binding region according to claim 1.

13. An isolated nucleic acid coding for the C3 binding region according to Claim 1.

15 14. The C3 binding region according to Claim 1 which is produced by recombinant means.

15 15. A vaccine comprising the C3 binding region of Claim 1 in an amount effective to elicit an immune response, and a pharmaceutically acceptable vehicle,  
20 carrier or excipient.

16. A method of inhibiting complement activity in a human or animal patient comprising administering to the patient the C3 binding region of Claim 1 in an amount effective to inhibit complement activity.

25 17. The method of Claim 16, wherein the C3 binding region is administered in the form of a pharmaceutical composition comprising the C3 binding region in an amount effective to inhibit complement activation and a pharmaceutically acceptable carrier.

18. A method of inhibiting complement activation in a human or animal patient in need of such inhibition comprising administering to the patient the Efb protein of *Staphylococcus aureus* or the C3 binding region of the Efb protein of *Staphylococcus aureus* in an amount effective to inhibit complement activity.

19. The method of Claim 18, wherein the Efb protein or C3 binding region is administered in the form of a pharmaceutical composition comprising the Efb protein or C3 binding region in an amount effective to inhibit complement activation and a pharmaceutically acceptable carrier.

20. A pharmaceutical composition comprising the *S. aureus* Efb protein or the C3 binding region of the *S. aureus* Efb protein in an amount effective to inhibit complement activation, and a pharmaceutically effective vehicle, carrier or excipient.

21. A method of treating or preventing hemolytic anemia in a human or animal patient in need of said treatment comprising administering to the patient the Efb protein of *S. aureus* or the C3-binding region of the Efb protein of *S. aureus* in an amount effective to inhibit complement activation.

22. The method of Claim 21, wherein the Efb protein or the C3 binding region of the Efb protein is administered in the form of a pharmaceutical composition comprising the protein or binding region in an amount effective to inhibit complement activation and a pharmaceutically acceptable vehicle, carrier or excipient.

23. A method of reducing the induction of complement activation by a biological or prosthetic tissue or organ implant comprising coating the implant with an Efb protein or the C3 binding region of the Efb protein in an amount effective to

inhibit complement activation when the implant is implanted into a human or animal patient.

24. A method of inducing an immunological response comprising  
5 administering to a patient an immunologically effective amount of the C3 binding region of the *Staphylococcus epidermidis* Efb protein.

25. The method of inhibiting complement activation according to Claim 18  
10 wherein said method is used to inhibit complement activation during a process intended to reduce the likelihood of rejection of a graft or implant.

26. The method of inhibiting complement activation according to Claim 18  
15 wherein said method is used to inhibit complement activation during a kidney dialysis process.

27. The method of inhibiting complement activation according to Claim 26  
wherein said method is used to inhibit complement activation during hemodialysis.